

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/50606

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B47/10 G01F1/10 G01F1/74

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B G01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 586 027 A (CARLSON NORMAN R ET AL) 17 December 1996 (1996-12-17)	1,4,7-9
Y	column 7, line 10 - column 8, line 34; figure 5 Claims 7-9 lack inventive step over this document considered alone ---	2-5,11, 12
Y	US 5 561 245 A (GEORGI DANIEL T ET AL) 1 October 1996 (1996-10-01) column 6, line 40 - line 54; figures 3,4 ---	2-5,12
Y	US 3 909 603 A (NICOLAS YVES) 30 September 1975 (1975-09-30) abstract; figure 7 ---	11
Y	EP 0 362 011 A (SCHLUMBERGER LTD) 4 April 1990 (1990-04-04) column 6, line 10 - line 31; claims 1-23 ---	1,11,12
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

27/02/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 633 470 A (SONG SHANHONG) 27 May 1997 (1997-05-27) abstract	1, 11, 12
Y	EP 0 519 809 A (SCHLUMBERGER LTD ; SCHLUMBERGER SERVICES PETROL (FR); SCHLUMBERGER) 23 December 1992 (1992-12-23) cited in the application claims 1-7	1, 11, 12

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Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5586027	A	17-12-1996	NONE	
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US 3909603	A	30-09-1975	FR 2101037 A5 AU 473803 B2 AU 3222271 A CA 1006267 A1 GB 1364926 A ZA 7105344 A	31-03-1972 01-07-1976 15-02-1973 01-03-1977 29-08-1974 28-03-1973
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